

CLAIMS

1. Modular floor covering comprising:

- tiles (7),

- at least one series of identical tile-framing modules
5 (1, 8) which are rigid in at least one plane, the framing
modules of the one or more series being complementary so as
to be able to be placed with respect to one another to form
an exposed grid for framing the said tiles (7) which has
openings of dimensions at least substantially identical to
10 those of the tiles,

- means for detachable assembly of the framing modules
with one another, adapted to impose a relative orientation
of the said modules and to connect them rigidly in at least
one plane,

15 wherein the means for detachable assembly are adapted to
allow, once the floor covering has been laid, any one of
the framing modules to be removed by manipulating only the
said framing module and/or the single tiles and/or single
modules which are adjacent to it.

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2. Covering as claimed in claim 1, wherein the assembly
means are adapted to allow, once the covering has been
laid, a first framing module to be dissociated from the
framing modules which are adjacent to it by simply

25 displacing the said first module in a vertical direction.

3. Covering as claimed in one of claims 1 and 2, wherein
the framing modules (20, 23) of at least one series have a
general shape of a straight strip.

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4. Covering as claimed in claim 3, comprising square or
rectangular tiles, wherein it comprises a first series of
identical modules (21, 22) having a general shape of a
straight strip of any width and of a length at least

substantially equal to a first side of the tiles, and a second series of identical modules (20, 23) having a general shape of a straight strip of a length at least substantially equal to the sum of the other side of the tiles and the width of a module of the first series, or to twice this sum.

5. Covering as claimed in one of claims 1 and 2, wherein the framing modules of at least one series have a general shape of a strip which is not straight, adapted to define at least one angle characteristic of an opening of the grid or a curved portion characteristic of an opening of the grid.

6. Covering as claimed in claim 5, wherein it comprises tiles (7) having the shape of a polygon, and wherein the framing modules (1, 8) of at least one series have a shape adapted to each frame at least one polygon vertex of a tile.

7. Covering as claimed in claim 6, comprising square tiles (7) or rectangular tiles, wherein the framing modules (1) of at least one series each comprise at least two orthogonal straight strips (2, 3).

8. Covering as claimed in claim 7, wherein the framing modules of at least one series each comprise a first straight strip of any width and of a length at least substantially equal to a first side of the tiles, and a second orthogonal straight strip of a length at least substantially equal to the sum of the other side of the said tiles and the width of the first strip, the first strip being fixed, by a longitudinal end, to the centre of a lateral face of the second strip.

9. Covering as claimed in claim 7, wherein the framing modules (1) of at least one series each comprise two first facing parallel straight strips (3, 4), of any width and of the same length at least substantially equal to one side of the tiles (7) and each fixed orthogonally, by a longitudinal end (3a, 4a), on a lateral face of a third straight strip (2), facing two sections of this third strip delimiting two end portions of the same length and a central portion of the said third strip, the central portion having a length at least substantially equal to twice the length of an end portion, the said third strip (2) having a total length at least substantially equal to the sum of the combined widths of the first and second strips and twice the other side of the said tiles.

10. Covering as claimed in one of claims 1 to 9, wherein it comprises a single series of identical and complementary framing modules (1, 8).

11. Covering as claimed in one of claims 1 to 10, wherein the means for detachable assembly of two adjacent framing modules, assembled with one another at at least one point, called the assembly point, comprise at least one rigid element (60, 106) formed of two portions (62, 63, 107, 108), called legs, one (62, 107) of the said legs being intended to fit under one (20, 100), first, of the framing modules, into a corresponding lower receptacle (69, 116a) of the said first module extending from the assembly point, the other (63, 108) of the said legs being intended to fit under the other (21, 101), second, of the framing modules, into a corresponding lower receptacle (83) of the said second module extending from the assembly point.

12. Covering as claimed in claim 11 and as claimed in one of claims 3 and 5, wherein each lower receptacle (69, 116a) for receiving one leg of the assembly element extends mainly in a longitudinal direction of the strip (20, 100).

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13. Covering as claimed in one of claims 11 and 12, wherein the element(s) for assembly of two orthogonal straight strips of two adjacent framing modules (20, 21) each consists(consist) of a right-angle piece (60).

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14. Covering as claimed in one of claims 11 and 12, wherein the element(s) for assembly of two aligned straight strips of two adjacent framing modules (20, 23) each consists(consist) of a straight bar or a straight plane plate (73).

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15. Covering as claimed in one of claims 11 to 14, wherein it comprises means for detachable locking of the assembly means, such as two fixing screws, each passing through a lateral edge of a framing module and one leg of the assembly element and capable of preventing relative displacement of the framing modules and the assembly element.

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25 16. Covering as claimed in one of claims 1 to 10, wherein:
 - the means for detachable assembly of each framing module comprise at least one jointing structure (26) intended to fit, in a vertical direction, into a mating jointing structure (25) of an adjacent framing module,
 30 - each framing module comprises only male-type jointing structures or only female-type jointing structures,
 - the covering comprises at least two series of complementary framing modules, a first series of framing modules with male-type jointing structures, and a second

series of framing modules with mating female-type jointing structures.

17. Covering as claimed in claim 16, wherein the mating
5 jointing structures (25, 26) are adapted to define, when they are fitted together, a horizontal common bore (27, 28) intended to receive a rod (29) in order to prevent their relative displacement.

10 18. Covering as claimed in claim 16, wherein the jointing structure (35) of a framing module (8bis) comprises a vertical tenon (36) intended to fit into a mating vertical mortice (37) of the mating jointing structure (34) of the adjacent framing module (1bis).

15 19. Covering as claimed in claim 18, wherein the tenon (36) is in an elastically deformable material and has at least one horizontal shoulder (38) defining a head (61) of the tenon intended to fit with force into a mating head (60) of
20 the mortice (37) in order to prevent the vertical relative displacement of the mating jointing structures (34, 35).

20. Covering as claimed in one of claims 1 to 19, wherein the framing modules (1) comprise one or more metal profiles
25 (14, 5), each having an upper receptacle (59) for receiving a decorative lamina (6).

21. Covering as claimed in claim 20, wherein each metal profile (18) incorporates lower elastic damping means (19)
30 defining an area for supporting the framing module (1bis) on a floor (57).

22. Covering as claimed in claim 21, wherein each metal profile (18) comprises at least one lower receptacle for

receiving a strip (19) made of synthetic material of the rubber or injection-moulded foam type, projecting from the profile (18) in the vertical direction.

- 5 23. Covering as claimed in one of claims 1 to 22, wherein each tile (7) is formed of a plurality of superposed elementary sheets, including at least a lower take-up sheet (17) and an upper finishing sheet (16, 15).
- 10 24. Covering as claimed in claim 23, wherein each lower take-up sheet is chosen from a sheet made of compressed particules material, rubber, cardboard, rigid foam.
- 15 25. Covering as claimed in one of claims 23 and 24, wherein each upper finishing sheet is chosen from a terracotta tile, a ceramic tile, a stone tile, a sheet made of synthetic fibres such as a sheet of carpet, a sheet made of synthetic material of the PVC type, a sheet made of natural fibres of the type called sisal or coir or seagrass, a
20 sheet of solid wood or laminate, an aluminium sheet, a stainless steel sheet, a tempered glass tile, a combination of a tempered glass tile and a decorative intermediate sheet chosen from a piece of cloth, a piece of wallpaper, a sheet made of natural fibres of the type called sisal or
25 coir or seagrass or wicker or rattan, a sheet made of synthetic fibres of the carpet type, etc.
- 30 26. Covering as claimed in one of claims 1 to 25, wherein it comprises square tiles (7) having a width at least substantially equal to 50 cm.
27. Covering as claimed in one of claims 1 to 26, wherein the framing modules (1) comprise one or more strips (2, 3, 4), each having an at least substantially constant width of

between 1 cm and 25 cm, preferably between 5 cm and 15 cm, in a transverse direction.

28. Covering as claimed in one of claims 1 to 27, wherein
5 each tile (7) and each framing module (1) has an at least substantially constant thickness of between 15 and 20 mm in the vertical direction.